DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-022582
Date Inspected: 14-Apr-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Zhu Zhong Hai

CWI Present:	☑ Yes	☐ No		**Inspected CWI report:**	☐ Yes	☐ No	☑ N/A	
Rod Oven in Use:	☑ Yes	☐ No	☐ N/A	**Electrode to specification:**	☑ Yes	☐ No	☐ N/A	
Weld Procedures Followed:	☑ Yes	☐ No	☐ N/A	**Qualified Welders:**	☑ Yes	☐ No	☐ N/A	
Verified Joint Fit-up:	☐ Yes	☑ No	☐ N/A	**Approved Drawings:**	☑ Yes	☐ No	☐ N/A	
Approved WPS:	☑ Yes	☐ No	☐ N/A					
Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A					

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12AE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) and at work point E3 (Bike Path side) at Panel Points (PP) 111. 5 (east side), PP 112 (east and west side), PP 112.5 (east and west side) and 113 (east and west side) for Segment 12AE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00650 dated April 14, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220118 and the final torque value established was 467 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 12BE (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point E4 (Cross Beam side) and at work point E3 (Bike Path side) at Panel Points (PP) 113 (east side), PP 113.5 (east and west side), PP 114 (east and west side) and 114.5 (east and west side) for Segment 12BE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00650 dated April 14, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220118 and the final torque value established was 467 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 13AW (Side Panel to Bottom Panel)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3013A-012. The welder identification was 047864 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the weld connecting the Side Panel to Bottom Panel at work point W14, between PP 118 to PP 119(-1500mm).

Please reference the pictures attached for more comprehensive details.

Segment 13AE (FL3 I-Rib connecting the Edge Panel)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3007B-257. The welder identification was 068097 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as the weld connecting the FL3 I-Stiffener to the Edge Panel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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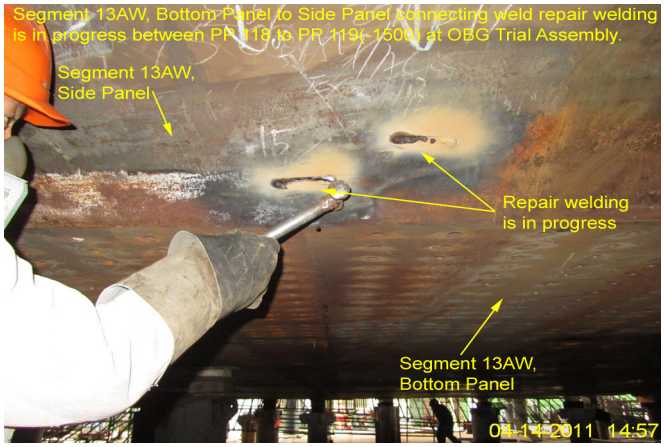

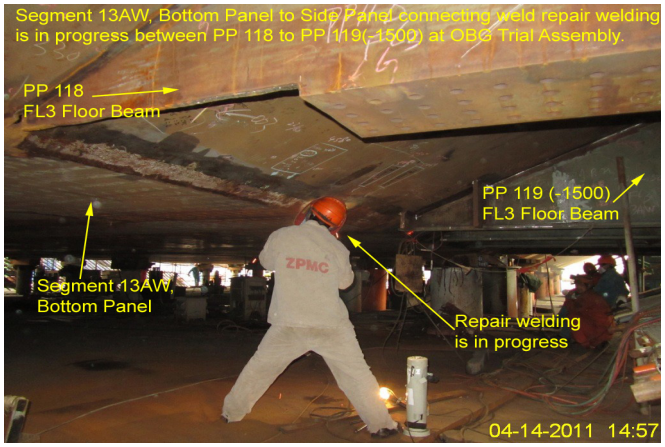

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer